

REMARKS

This is intended as a full and complete response to the Final Office Action dated September 19, 2008, having a shortened statutory period for response set to expire on December 19, 2008. Please reconsider the claims pending in the application for reasons discussed below.

Claims 30-31 and 33-60 remain pending in the application. Claims 33-36, 38 and 46-47 are previously withdrawn and claims 30-31, 37, 39-45, 48-49, 56, and 58-60 stand withdrawn by the Examiner in the Final Office Action dated September 19, 2008. Claims 50-55 and 57 stand rejected by the Examiner. Applicant proposes to the withdrawn claims 30-31, 33-49, 56, and 58-60 without prejudice. Reconsideration of the rejected claims is requested for reasons presented below.

Claim Restrictions

The Examiner indicated that claims 30-31, 37, 39-45, 48-49, 56, and 58-60 are drawn to the non-elected Figure 1a and Figure 2 and are withdrawn from consideration.

Applicant proposes to cancel the withdrawn claims 30-31, 33-49, 56, and 58-60 without prejudice. Applicant reserves the rights to pursue the cancelled claims.

Claim Rejections – 35 U.S.C. § 102

Claims 50 and 57 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Kuwashiro et al* (U.S. Patent No. 5,945,984, hereafter *Kuwashiro*). Applicant respectfully traverses the rejection on the ground that *Kuwashiro* does not teach or suggest every element in the pending claims. Particularly, *Kuwashiro* does not teach or suggest providing an input terminal of a drive circuit directly or via another component with input signals via an arrangement of test contact areas to generate a test pattern on a matrix of picture element as set forth in claim 50. *Kuwashiro* also does not teach or suggest testing picture elements of a matrix of picture elements as set forth in claim 50.

Kuwashiro teaches a display device 1 comprises a display panel 3 having pixel elements, a driver circuit portion 501 having plural driver circuit elements 601-1, 601-2, ... , 601-8, and a printed-wiring board 701 (Abstract, Figure 1). *Kuwashiro* teaches that

the plural driver circuit elements 601-1, 601-2, ... , 601-8 receive a serial input image signal, convert the signal to a parallel form and send the converted signal to the display panel 3 (Abstract). *Kuwashiro* further teaches that each driver circuit element 601-1, 601-2, ... , 601-8 has data terminals 641 and dummy (inspecting) terminal terminals 651-1, 651-2 (column 5 lines 53-65, Figure 3). The data terminals 641 and dummy terminals 651-1, 651-2 are electrically connected with data pads 721 and dummy pads 731-1, 731-2 of the printed-wiring pad 701 (Figure 3, column 7 lines 16-24). *Kuwashiro* teaches, when a defect is present in the image displayed in the display device 1, ascertaining whether the defect is attributed to any one driver circuit element 601-1, 601-2, ... , 601-8, to the printed-wiring board 701, or to other cause by contacting the dummy terminals 651-1, 651-2 with a probe and detecting whether desired signals are supplied (column 3 line 58 - column 4 line 3, and column 7 line 43 – column 8 line 10).

The Examiner asserts that *Kuwashiro* teaches providing an input terminal of a drive circuit 501 directly or via another component with input signals via the dummy terminals 651-1, 651-2 to generate a test pattern on a matrix of picture element in the page 3 of the Final Office Action. Applicant respectfully disagrees because *Kuwashiro* does not teach or suggest that the dummy terminals 651-1, 651-2 are used to provide an input signal to the driver circuit portion 501. In fact, *Kuwashiro* teaches that the dummy terminals are dummy output terminals and an inspecting appliance is made to abut against the dummy output terminals to inspect a display device for presence or absence of flow of a signal (column 3 lines 36-39). Regarding input signal, *Kuwashiro* teaches externally applying data signal and control signal to the driver circuit elements 601-1, 601-2,..., 601-8 from the printed-wiring board 701 (Figure 2, column 6 lines 26-35). Therefore, *Kuwashiro* does not teach or suggest providing an input terminal with input signals via an arrangement of test contact areas.

The Examiner further asserts that *Kuwashiro* teaches testing picture elements of a matrix of picture elements as set forth in claim from column 7 line 43 to column 8 line 27. In fact, the cited paragraph describes a manner used in attributing a defect in an image displayed on an active matrix liquid crystal display among the printed-wiring board 701, and the driver circuit elements 601-2, 601-2, ... , 601-8. *Kuwashiro* repeatedly indicates that the objects of the disclosure is to ascertain the source of a

defect among driving ICs, printed-wiring boards, and other driving circuit boards (column 1 lines 61-64, column 1 line 65 to column 2 line 4, column 9 lines 63-67, column 7 lines 56-64, and column 8 lines 1-10). *Kuwashiro* is silent regarding testing picture element of a display device.

In conclusion, *Kuwashiro* does not teach or suggest providing an input signal with an arrangement of test contact areas for testing picture elements of a matrix of picture elements as set forth in claim 50.

Accordingly, *Kuwashiro* does not teach, show, or suggest a method for testing an optoelectronic device comprising a) making contact between an external control and an arrangement of test contact areas which are larger than operational contact areas, b) providing an input terminal of a drive circuit directly or via another component with input signals via the arrangement of test contact areas to generate a test pattern on a matrix of picture elements, wherein the drive circuit is provided with signals for picture generation during operation via the operational contact areas connected to the input terminal of the drive circuit, the drive circuit comprises the input terminal for receiving external signals, means for modifying the external signals to form modified signals, and means for providing the modified signals for the matrix of picture elements during normal operation and during test mode, and c) testing the picture elements of the matrix of picture elements, as recited in amended claim 50, and claims dependent thereon.

Regarding claim 57, *Kuwashiro* does not teach or suggest every element claimed in claim 50. *Kuwashiro* also does not teach or suggest every element of claim 30. For example, *Kuwashiro* does not teach or suggest a first arrangement of contact areas serves for picture generation during normal operation and a second arrangement of contact areas serves for pattern generation during test mode as set forth in claim 30. Accordingly, claim 57 is allowable in view of *Kuwashiro*.

Therefore, claim 50 and 57 are in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 51-52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kuwashiro* in view of *DiMassimo et al* (U.S. Patent No. 4,456,910, hereafter *DiMassimo*). Applicant respectfully traverses the rejection.

Kuwashiro is discussed above. *DiMassimo* teaches a driver design for liquid crystal display (Abstract). However, *DiMassimo* does not teach or suggest elements in claim 50 that *Kuwashiro* fails to teach. Therefore, the combination of *Kuwashiro* and *DiMassimo* does not teach or suggest every element of claim 50, on which claims 51 and 52 are dependent. Accordingly, claims 51 and 52 are in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claim 53 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kuwashiro* in view of *Henley* (U.S. Patent No. 5,432,461, hereafter *Henley*). Applicant respectfully traverses the rejection.

Henley teaches a test apparatus having a light source and an electro-optical element to detect light radiated by the light source (Figure 1, column 3 line 55). However, *Henley* does not teach or suggest elements in claim 50 that *Kuwashiro* fails to teach. Therefore, the combination of *Kuwashiro* and *Henley* does not teach or suggest every element of claim 50, on which claim 53 is dependent. Accordingly, claim 53 is in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claim 54 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kuwashiro* in view of *Kim* (U.S. Patent No. 6,486,927, hereafter *Kim*). Applicant respectfully traverses the rejection.

Kim teaches an in-line LCD testing system (Abstract). However, *Kim* does not teach or suggest elements in claim 50 that *Kuwashiro* fails to teach. Therefore, the combination of *Kuwashiro* and *Kim* does not teach or suggest every element of claim 50, on which claim 54 is dependent. Accordingly, claim 54 is in condition for allowance. Withdrawal of this rejection is respectfully requested.

Claim 55 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kuwashiro* in view of *Hayashi* (U.S. Patent No. 5,994,916, hereafter *Hayashi*). Applicant respectfully traverses the rejection.

Hayashi teaches an LCD panel test system for measuring voltages in pixels of LCD with high signal to noise ratio (Abstract). However, *Hayashi* does not teach or suggest elements in claim 50 that *Kuwashiro* fails to teach. Therefore, the combination of *Kuwashiro* and *Hayashi* does not teach or suggest every element of claim 50, on which claim 55 is dependent. Accordingly, claim 55 is in condition for allowance. Withdrawal of this rejection is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,



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